Amendments to the Drawings:

The attached sheets of drawings includes changes to Figs. 1, 3, and 4. These sheets, which include Figs. 1-4, replace the original sheets including Figs. 1-4.

REMARKS

As a result of the above amendments, claims 1-44 remain pending. Claims 1, 7, 9, 15, 17, and 29-44 have been amended. No new matter has been added.

Objections to the Drawings and Amendment to the Specification

The Examiner has objected to the drawings because the drawings do not include certain reference characters mentioned in the specification. The drawings have been revised to include such reference characters from the specification, and have also been formalized. Applicants have further amended the specification at page 6, line 17 to insert "16" for element "14" to properly correspond to previously used number for this element within the specification and drawings. No new matter has been added. Applicants respectfully request entry of these amendments, and believe that the present objection has been overcome.

Objections to the Claims

The Examiner has objected to claims 7 and 15 because these claims included a parenthetical. These claims have been amended to remove the parenthetical. Thus, Applicants believe that the present objection has been overcome.

The Examiner has also objected to claims 30-45 as being incorrectly numbered. In the Office Action, the Examiner has indicated that the Examiner has renumbered these claims to claims 29-44. For clarity, Applicants have formally amended the numbering of these claims from 30-45 to 29-44. Thus, Applicants believe that the present objection has been overcome.

Rejection of Claims 2, 10, 22, 30, and 38 under 35 U.S.C. §103(a)

The Examiner has rejected these claims under 35 U.S.C. §103(a) as allegedly being unpatentable over Mangold (US 5,926,232) in view of Wicker (Stephen B. Wicker, "Error Control Systems for Digital Communication and Storage" Prentice Hall, pages 240-243 & 396-397). In doing so, the Examiner stated that Mangold teaches redundant data is used to detect errors in an error corrective system. The cited portion of Mangold at col. 3, lines 30-36 states that redundancies R1 and R2 are added to parameter sets in partial channel encoders K1 and K2, respectively, so that errors which occur during transmission can be detected and possibly corrected. However, the Examiner does not explain how this is achieved within Mangold.

The Examiner further cites the Abstract of Mangold for the proposition that a corrective action is taken and that redundancy is this corrective action, but again without explaining how the redundancy is performed within Mangold. The Abstract specifically states that redundancy is added to the source encoded signals for error control protection. Within Mangold, it is significant that the context of the redundancy data or information is *within each signal*, not "redundant signals." Mangold teaches utilizing redundant data within the same signal. This appears to be done for all signals within Mangold. Mangold does not teach using redundant signals as a corrective action.

Wicker discusses retransmissions of packets of data, but only in the context of "retransmission requests." A retransmission request appears to only occur when a detected error occurs. Thus, according to Wicker, a retransmission request would only occur after an error has occurred, which is significantly different from sending redundant packets or messages on the front end without knowing if an error is going to occur. Wicker does not disclose changing corrective actions based on a rate of errors /undetected errors; corrective actions are only discussed in the context of knowing about an actual error in a signal, and requesting retransmission of that particular signal.

Claims 2, 10, 22, 30, and 38 all require retransmitting a message at a rate, thus inferring that it is done on a regular basis, without the need for a request for retransmission to occur in response to a specific detected error. The Examiner bears the burden of establishing a prima facie case of obviousness, and this burden cannot be met unless all of the claimed limitations are taught or suggested by the prior art. MPEP 2143.03; *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385; 165 USPQ 494, 496 (CCPA 1970). The combination of Mangold and Wicker does not teach or disclose each and every element of these claims, as neither of these references teach or disclose retransmission without an error first occurring (without a "retransmission request" in response to a specific detected error). Thus, for this reason alone, original claims 2, 10, 22, 30, and 38 are all patentably distinct from the combination of Mangold and Wicker, even without the amendments to claim 1, 9, 17, 29, and 37. Therefore, Applicants respectfully request that claims 2, 10, 22, 30, and 38, and all claims depending there from, be allowed.

Rejection of Claims 1, 9, 17, 29, and 37 under 35 U.S.C. §103(a)

The Examiner has rejected these claims under 35 U.S.C. §103(a) as allegedly being unpatentable over Mangold in view of Wicker. In doing so, the Examiner stated that Mangold teaches redundant data is used to detect errors in an error corrective system. The cited portion of Mangold at col. 3, lines 30-36 states that redundancies R1 and R2 are added to parameter sets in partial channel encoders K1 and K2, respectively, so that errors which occur during transmission can be detected and possibly corrected. However, as mentioned above, the Examiner does not explain how this is achieved within Mangold.

The Examiner further cites the Abstract of Mangold for the proposition that a corrective action is taken and that redundancy is this corrective action, but again without explaining how the redundancy is performed within Mangold. The Abstract specifically states that redundancy is added to the source encoded signals for error control protection. Within Mangold, it is significant that the context of the redundancy data or information is *within each signal*, not "redundant signals." Mangold teaches utilizing redundant data within the same signal. This appears to be done for all signals within Mangold. Mangold does not teach only taking corrective action on less than all of the signals, but on all such signals for which corrective action is to be taken, and without being in response to a specific detected error.

Wicker discusses retransmissions of packets of data, but only in the context of "retransmission requests." A retransmission request appears to only occur when a specific detected error occurs. Thus, according to Wicker, a retransmission request would only occur after an error has occurred, which is significantly different than taking corrective action on less than all of the transmissions on the front end before knowing if a specific error is has occurred. Wicker does not disclose changing corrective actions based on a rate of errors /undetected errors; corrective actions are only discussed in the context of knowing about an actual error in a signal, and requesting retransmission of that particular signal in response thereto.

For the sake of clarity, claims 1, 9, 17, 29, and 37 have been amended to require either regularly executing a corrective action on all of at least one type of the messages, without executing the corrective action on another type of the messages, or regularly executing the corrective action on one of every X messages, wherein X is an integer greater than one. In either version of these amended claims, such claims have been clarified to specifically recite that less

than all of the messages regularly have a corrective action taken on such messages, without the need for receipt of a retransmission request in response to a specific actual error detection. The corrective action is done on a regular basis, without the need for a request for retransmission to occur. The Examiner bears the burden of establishing a prima facie case of obviousness, and this burden cannot be met unless all of the claimed limitations are taught or suggested by the prior art. MPEP 2143.03; *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385; 165 USPQ 494, 496 (CCPA 1970). As indicated above, the combination of Mangold and Wicker does not teach or disclose each and every element of these claims, as neither of these references teaches or discloses a corrective action occurring on less than all of the messages without an actual error first occurring (without a specific "retransmission request"). Thus, for this reason alone, amended claims 1, 9, 17, 29, and 37 are all patentably distinct from the combination of Mangold and Wicker. Therefore, Applicants respectfully request that claims 1, 9, 17, 29, and 37 be allowed. Since all other claims depend from these claims, either directly or indirectly, the dependent claims are also now in condition for allowance.

CONCLUSION

In view of the Amendments and Remarks above, Applicants believe that the present application is in condition for allowance and respectfully request Examiner to issue a Notice of Allowance at the earliest possible date. If the Examiner would like to discuss the present Reply or application, Applicants request the Examiner to contact the below-listed attorney.

Respectfully submitted,

Dated: 1/27/2005   By: _James P. Muraff_

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CERTIFICATE OF MAILING (37 C.F.R. § 1.8a)
I hereby certify that this correspondence is, on the date shown below, being deposited with the United States Postal Service, with first class postage prepaid, in an envelope addressed to: Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450
on January 27, 2005

Gillian Gardner/217718